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EXAMINER

NGUYEN, QUYNH H

ART UNIT

PAPER NUMBER

2614

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 02/22/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/905,775

Applicant(s)

SPRATT, MICHAEL P.

Examiner

Quynh H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 10-18, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 6, 8-9 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The text of those sections of Title 35 U.S. Code not included in this action can be found in a prior Office action.
2. Applicant's appeal brief filed 2/21/06 has been entered. No claims have been amended. No claims have been cancelled. No claims have been added. Claims 1-21 are still pending in this application, with claims 1, 17-18, and 20-21 being independent..

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 recites "...the message only following an immediately-prior determination...". Examiner carefully reviewed Fig. 4 and Applicant's specification page 10, lines 12-29, that was pointed by Applicant in Remarks filed 1/11/05 and entire specification and could not find the cited limitation "...following an immediately-prior..."

Claim Rejections - 35 USC § 103

5. Claims 1-3, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. Patent 6,246,883).

Regarding claim 1, Lee teaches a method for passing a message to a target receiver at a known location (col. 1, lines 34-37; col. 2, lines 25-28), wherein the message is carried towards the target receiver by one or more mobile entities (Fig. 1, *mobile station 102*) by short-range communication (col. 3, line 61 through col. 4, line 15), the message including an indication of the location of the target receiver, and at least one of the mobile entities (Fig. 1, *mobile station 102*) is used to physically carry the message in a direction that progresses the message on its way to the target receiver (col. 3, lines 27-59 - *where Lee discussed a mobile base station travels along its appointed route, and mobile station 102 travels down path 107 to sequentially serve areas 104, 105, and 106*).

Lee does not explicitly teach the message only following a determination that the direction of travel is appropriate to the target receiver.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the above-mentioned feature into the teachings of Lee for the purpose of having a more efficient system when mobile entities travel to certain heavy congested geographic areas. For example, it may be advantageous for mobile base stations to obtain meter readings and other data from users along the route in heavy congested areas where mobile entities or buses for obtaining gas meter readings for users' houses in common boundary between cities or counties, or buses

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traveling along the route that belong to different companies. It is necessary for the mobile entity traveling in direction following a determination that the direction of travel is appropriate to the target receiver.

Regarding claim 2, Lee teaches at least one mobile entity (Fig. 1, *mobile station 102*) is determined to be traveled in an appropriate direction upon this direction approximating to the direction towards the target receiver (col. 3, lines 27-59 - *where Lee discussed a mobile base station travels along its appointed route, and mobile station 102 travels down path 107 to sequentially serve areas 104, 105, and 106*).

Regarding claim 3, Lee teaches at least one mobile entity (Fig. 1, *mobile station 102*) is determined to be traveled in an appropriate direction upon this direction taking it along a map route in a direction reducing the route distance to the target receiver (col. 7, lines 43-58).

Claim 17 is rejected for the same reasons as discussed above with respect to claim 1.

6. Claims 4-5, 7, and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. Patent 6,246,883) in view of Toh (U.S. Patent 5,987,011).

Claims 4, 5, and 7 are rejected for the same reasons as discussed above with respect to claim 1. However, Lee does not teach an intermediate location.

Toh teaches intermediate nodes 22.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Toh into the teachings of Lee for the

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purpose of supporting the routing and the route relay load together with information on route propagation delays and hop count, as discussed by Toh (col. 8, lines 50-58).

Regarding claims 10-16, Toh teaches the process of decreasing the transmission distance, calculating the necessary power and transmitting the packet is repeated until the adjusted distance is no longer positive (col. 15, lines 17-59); and the sky wave signal propagation relies on the incidence angle and the angle of refraction (col. 7, line 63 through col. 8, line 15). However, Lee and Toh do not teach at least one mobile entity when carrying the message seeks to pass on the message to another mobile entity or multiple entities upon its direction of travel no longer being appropriate to progress the message on its way to the target receiver; informing by the message-receiving mobile entity as to whether the latter has accepted to carry the message. It would have been obvious to one of ordinary skill in the art to incorporate the mentioned above features in Lee's and Toh's systems to have a short range device that cover the radio transmitters which provide either uni-directional or bi-directional communication that have low capability of causing interference to other radio equipment.

7. Claims 18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (U.S. Patent 6,246,883) in view of Toh (U.S. Patent 5,987,011) and further in view of Stiller et al. (U.S. Patent 6,704,283).

Claims 18, 20, and 21 are rejected for the same reasons as discussed in claims 1 and 11. Furthermore, Lee teaches a memory for holding the message (col. 2, lines 28-31).

Lee and Toh do not teach a short-range transceiver capable of determining the presence nearby of the mobile entity.

Stiller et al. teach a short-range transceiver capable of determining the presence nearby of the mobile entity (col. 6, line 29).

It would have been obvious to one of ordinary skill in the art to incorporate the feature of a short-range transceiver capable of determining the presence nearby of the mobile entity, as taught by Stiller, in Lee's and Toh's systems thus making the system more efficient in determining the best route.

Allowable Subject Matter

8. Claims 6, 8-9, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's Appeal Brief, filed 2/21/06 with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection. Applicant arguments are addressed in the above claims rejections.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Kado et al. (2001/0053669) teaches communication network system.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 571-272-7489. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quynh H. Nguyen

February 20, 2007


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